



PARTIAL DISCHARGE: THINGS YOU SHOULD KNOW

Partial Discharge (PD) is an electrical discharge that does not completely bridge the space between two conducting electrodes. PD is generally accepted as the predominant cause of long term degradation and eventual failure of electrical insulation. As a result, its measurement is standard procedure in the factory testing of many types of high voltage equipment

HOW DOES IT OCCUR?



PD occurs in gas filled cavities or defects in the high voltage insulation. These defects can originate during manufacture, at installation, through natural deterioration with age, or through increased electrical stress or heating from current overloads

WHAT ARE THE EFFECTS?



Undetected PD is likely to lead to cable failure. This can result in loss of supply and unplanned outage. If PD is present in switchgear, this can have serious safety implications, collateral damage and cause major disruption to operations and financial loss

WHAT IF PD IS DETECTED?



The presence of PD suggests there is a defect in the cable/switchgear that is damaging the insulation. To avoid failure, the PD should be localised and repairs carried out immediately. PD activity should be monitored to warn against pending failure

80% of disruptive failure is related to partial discharge.

To learn more about PD theory and detection methods, visit www.ipeec.co.uk or to book a PD training course, contact sales@ipeec.co.uk

